

REMARKS

In the Office Action, the Examiner alleged that the Information Disclosure Statement was defective because the following reference was missing a page between the cover page and the second page: "Enhancements to User Location and Tracking System" by Paramvir Bahl and Venkata N. Padmanabhan, Microsoft Technical Report MSR-TR-99-12, dated February 1999, published by Microsoft Research.

Further, the Examiner rejected claim 1 under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent Publication 2004/0052232 to Ramaswamy et al. (hereinafter "Ramaswamy").

In addition, the Examiner rejected claim 2 as allegedly obvious over Ramaswamy in view of U.S. Patent Number 6,259,898 to Lewis (hereinafter "Lewis"). The Examiner rejected claims 4-5 as allegedly obvious over Ramaswamy in view of U.S. Patent Publication 2002/0087264 to Hills et al. (hereinafter "Hills"). The Examiner rejected claim 6 as allegedly obvious over the combination of Ramaswamy and Hills in view of Lewis. The Examiner rejected claim 8 as allegedly obvious over Ramaswamy in view of U.S. Patent Publication 2003/0036386 to Harrison (hereinafter "Harrison"). The Examiner rejected claim 9 as allegedly obvious over the combination of Ramaswamy and Harrison in view of U.S. Patent Number 5,848,358 to Forssen et al. (hereinafter "Forssen").

Finally, Applicant thanks the Examiner for identifying allowable subject matter in claims 3 and 7. Applicant has amended these claims to include all limitations of the claims from which they depend. Accordingly, Applicant respectfully submits that these claims are in condition for allowance.

Information Disclosure Statement (IDS)

The Examiner has alleged on both page 2 of the Office Action and on the received IDS that the IDS was defective because a complete copy of the following reference had not been submitted to the USPTO: “Enhancements to User Location and Tracking System” by Paramvir Bahl and Venkata N. Padmanabhan, Microsoft Technical Report MSR-TR-99-12, dated February 1999, published by Microsoft Research. Applicant assumes that this is the name of the incomplete reference that the Examiner is referring to on page 2 of the Office Action because the title of this reference is crossed out on the IDS. The Applicant would like to thank the Examiner for pointing out the incomplete reference.

Upon reviewing the materials transmitted to the USPTO as part of the IDS, Applicant has confirmed that one of the references indeed was incomplete when transmitted to the USPTO in that it was missing a page between the cover page and page #2 of the reference as noted by the Examiner. However, the Examiner apparently has misquoted the title of the reference that was incomplete. The reference that apparently was transmitted in incomplete form was: “User Location and Tracking in an In-Building Radio Network” by Paramvir Bahl and Venkata N. Padmanabhan, Microsoft Technical Report MSR-TR-99-12, dated February 1999, published by Microsoft Research (hereinafter “complete ’99 reference”). Applicant has, in conjunction with this Amendment and Response, filed a supplemental IDS containing the complete ’99 reference for review by the Examiner. Applicant respectfully requests that the complete ’99 reference be made of record.

In addition, upon review of the IDS, Applicant would like to inform the Examiner that the title of the reference “Enhancements to the User Location and Tracking System,” by Paramvir Bahl and Venkata N. Padmanabhan, Microsoft Technical Report MSR-TR-99-12,

dated February 1999, published by Microsoft Research was inaccurately recorded on the IDS.

To dispel any further confusion, Applicant has also included in the supplemental IDS a complete copy of the second Microsoft Research reference, correctly entitled: “Enhancements to the RADAR User Location and Tracking System” by Paramvir Bahl and Venkata N. Padmanabhan, Microsoft Technical Report MSR-TR-2000-12, dated February 2000, published by Microsoft Research (hereinafter “complete ’00 reference”). Please note that the content of the reference is the same as in the original IDS; it is only the name of the title that has been corrected. Applicant respectfully requests that this reference be appropriately made of record.

Rejection under § 102(b): Claim 1

Ramaswamy is directed to a method and apparatus for determining whether a mobile device is located within a wireless local area network using a position location system. (*See* Ramaswamy, Abstract).

The Examiner alleges that Ramaswamy discloses the element of independent claim 1 of “a wireless data communications system wherein mobile units become associated with access points . . . wherein selection of an access point for association with a mobile unit is made according to selection criteria including a *plurality of selection parameters* (P#22 discloses using position from GPS and/or position from communication system, e.g. AGPS and/or Loran, P#17...)” (emphasis added). (Office Action, p. 3). As is clearly reflected in the claim language, this element requires that the system select an access point for associating a mobile unit based on a *plurality of selection parameters*. Such selection parameters may comprise, *inter alia*, range from the mobile unit to the access points, signal strength from the mobile unit to the access points, traffic volume, and direction of change of location of the mobile unit. (*See* Specification,

¶ [0006]).

Ramaswamy does not disclose or suggest the element of “selection of an access point for association with a mobile unit is made according to selection criteria including a *plurality of selection parameters*.” Applicant respectfully asserts that the portions that the Examiner has cited as disclosing this element merely disclose selection of an access point based on, at most, a single selection parameter: whether the mobile unit is in range of the access point. (See Ramaswamy, Abstract, ¶ [0022]-[0024]) (“[T]he wireless communication system **102** determines whether the mobile device **110** is within one or more of the service areas . . . [If so,] the mobile device **110** determines whether to connect to the WLAN.”). Thus, the only parameter that is considered is the distance between the mobile device and the WLAN, which is calculated from the “position of the mobile device (**110**) and the position of the WLAN (**104**).” See *id.*

Ramaswamy does not evaluate or weigh the values of a plurality of selection parameters when assessing whether to associate a mobile unit to a specific access point as in the claimed invention. (See Specification, ¶ [0020]). For at least this reason, Ramaswamy does not disclose or suggest the element of “selection of an access point for association with a mobile unit is made according to selection criteria including a *plurality of selection parameters*” and thus does not anticipate independent claim 1 of the claimed invention. Applicant further respectfully submits that, since claims 2-4 all depend, either directly or indirectly, from claim 1, and so contain all of its limitations, these dependent claims cannot be anticipated or rendered obvious by the prior art relied upon by the Examiner.

#### Rejection Under § 103(a): Independent Claim 5

Similar to claim 1 above, the Examiner has cited Ramaswamy as disclosing the element

of independent claim 5 of “a wireless data communications system wherein mobile units become associated with access points . . . wherein selection of an access point for association with a mobile unit is made according to selection criteria including a *plurality of selection parameters* (P#22 discloses using position from GPS and/or position from communication system, e.g. AGPS and/or Loran, P#17...).” (*See* Office Action, p. 5). As discussed above, Ramaswamy does not disclose or suggest this element. Hills has been cited against claim 5 only for the alleged teaching of the element of “wherein said system includes arrangements for determining direction of change of location of a mobile unit within said area, the improvement wherein said selection criteria includes direction of change of location of said mobile unit when there are a plurality of access points available for association with said mobile unit.” (Office Action, page 5). Hills does not disclose or suggest any of the aforementioned features of independent claim 5 missing from Ramaswamy and has not been so cited. Thus, for at least this reason, claim 5 is not rendered obvious by the combination of Ramaswamy and Hills.

Furthermore, the Examiner has improperly combined Hills and Ramaswamy in order to reject claim 5 under § 103(a). Hills is directed to a “system for determining a position of a user” comprising a “distance sensor for detecting movement by the user; an input device for allowing the *user* to enter a relative change in direction input...” (emphasis added). (*See* Hills, Abstract, ¶ [0012]). The distance sensor may comprise a “stride detector” or “odometer.” (*See* Hills, ¶ [0024]-[0025]). Ramaswamy, on the other hand, is directed to a method and apparatus for determining whether a mobile device is located within a wireless local area network using a position location system such as Global Positioning System (GPS) or similar technology. (*See* Ramaswamy, Abstract, ¶ [0017]).

As the Court of Appeals for the Federal Circuit has held:

It has not been shown that a person of ordinary skill, seeking to solve a problem of fastening a hose clamp, would reasonably be expected or motivated to look to fasteners for garments. The combination of elements from non-analogous sources, in a manner that reconstructs the applicant's invention only with the benefit of hindsight, is insufficient to present a *prima facie* case of obviousness. There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge can not come from the applicant's invention itself. *In re Oetiker*, 977 F.2d 1443, 1447 (Fed. Cir. 1992).

There is no "reason, suggestion, or motivation" in the prior art such that one of ordinary skill in the art would make the combination which form the basis of the rejections under 35 U.S.C. § 103(a) in the Office Action. In contrast to Hills, Ramaswamy determines position of a mobile unit by using GPS or similar technology; in fact, Ramaswamy depends entirely upon the use of GPS to determine the position of the mobile unit. (See Ramaswamy, ¶ [0017]-[0018]). Hills, however, discloses no such use of a GPS system for determining location, and in fact, *teaches away* from the use of a GPS system. (See Hills, ¶ [0007]). Further, the device in Hills is wholly dependent upon human input for determining position; in order for the computer to calculate the user's position, the human user must enter all changes of direction into the computer program. (See Hills, ¶ [0036]). Ramaswamy on the other hand, presents a system that, without human input, determines whether a mobile unit is within the range of an access point. In summary, one skilled in the art of wireless networks and mobile devices interacting with Global Positioning Systems would not look to a device consisting of a stride detector or an odometer and a computer that is wholly dependent upon human input to calculate position to solve the problem of associating mobile units to wireless access points. Accordingly, without the benefit of hindsight, one of ordinary skill in the art would not look to combine this non-analogous art.

Indeed, even the P.T.O. has acknowledged that Hills is in a different field of endeavor from Ramaswamy, as evidenced by their different International Classifications and U.S. Class/Sub-Classifications. Hills falls within U.S. Classification 701 (“Data Processing: Vehicles, Navigation, and Relative Location”) while Ramaswamy is within U.S. Classification 370 (“Multiplex Communications” specifically in the subclass of “Contiguous regions interconnected by a local area network”). Accordingly, without the benefit of hindsight, one of ordinary skill in the art would not look to combine this non-analogous art. For at least this reason, the combination of Hills and Ramaswamy does not render claim 5 obvious. Applicant further respectfully submits that, since claims 6 and 7 depend, either directly or indirectly, from claim 5, and so contain all of its limitations, these dependent claims cannot be anticipated or rendered obvious by the prior art relied upon by the Examiner.

Rejection Under § 103(a): Claim 8

Harrison is directed to a method of handing off a wireless communications device from one access point to another. (*See* Harrison, Abstract).

The Examiner alleges that Harrison teaches the element of claim 8 of “a method for avoiding collisions of packets transmitted by said mobile units to an associated access point, comprising assigning mobile units in a *selected portion of said area to another access point.*” (emphasis added) (*See* Office Action, p. 7). Harrison, however, does not disclose or suggest any method for determining *which* mobile units will be reassigned in order to avoid “collisions of packets transmitted by said mobile units.” Claim 8 clearly requires that the “mobile units in a *selected portion of said area*” be assigned to another access point, implying that only specific mobile units will be reassigned if they are located in a certain area. When reassigning mobile

units to different access points, Harrison does not disclose or suggest making any sort of distinction amongst mobile units based on their locations around an access point. Thus, Harrison cannot possibly disclose or suggest “assigning mobile units in a *selected portion of said area to another access point*” as claim 8 requires. For at least this reason, Applicant respectfully asserts that the combination of Harrison and Ramaswamy does not render claim 8 obvious.

Rejection Under § 103(a): Claim 9

Forssen is directed to a method of “intra-cell handover . . . in a cellular communication system which utilizes spatial information from an antenna array.” (*See* Forssen, Abstract).

The Examiner alleges that the combination of Ramaswamy, Harrison, and Forssen renders independent claim 9 obvious. (*See* Office Action, pp. 7-8). However, currently amended claim 9 now comprises the element of a “wireless data communications system wherein mobile units within an area become associated with access points, and wherein selection of an access point for association with a mobile unit is made according to selection criteria including a plurality of selection parameters” (emphasis added). As discussed above in connection with independent claims 1 and 5, Ramaswamy does not disclose or suggest selecting an “access point for association with a mobile unit . . . made according to selection criteria including a *plurality of selection parameters*” (emphasis added). Furthermore, Harrison, which is directed to a method for handing off Bluetooth connections to other access points, fails to disclose or suggest this element as well. Nor has the Examiner cited Harrison as disclosing this element. Finally, Forssen similarly fails to disclose or suggest the above-described element. Nor has the Examiner cited Forssen as disclosing this element.



For at least this reason, Applicant respectfully asserts that currently amended independent claim 9 is now in condition for allowance.

CONCLUSION

In view of the foregoing remarks, favorable consideration and allowance of claims 1, 2, 4-6, 8, and 9 are respectfully solicited. In the event that the application is not deemed in condition for allowance, the examiner is invited to contact the undersigned in an effort to advance the prosecution of this application.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'R. L. Maier', is written over a horizontal line.

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